4.23 Dust Control on Disturbed Areas

Du

Definition

Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

Purpose

Dust control prevents surface and air movement of dust from exposed soil surfaces to reduce the presence of airborne substances that may be harmful or injurious to human health and the welfare of animals or plant life.

Conditions

This practice is applicable to areas subject to surface and air movement of dust where on- and off-site damage may occur without treatment.

Temporary Methods and Materials

Mulches

See section “Disturbed Area Stabilization (With Mulching Only).” Synthetic resins may be used instead of asphalt to bind mulch material. Resins such as Curasol or Terratack should be used according to manufacturer’s recommendations.

Vegetative Cover

See section “Disturbed Area Stabilization (With Temporary Seeding).”

Spray-On Adhesives

These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. See Table 4.23.1.

TABLE 4.23.1 Emulsion Application Rates			
Adhesive	**Water Dilution**	**Type of Nozzle**	**Application Rate (gallons/acre)**
Anionic Asphalt Emulsion	7:1	Coarse Spray	1,200
Latex Emulsion	12½:1	Fine Spray	235
Resin-in-Water Emulsion	4:1	Fine Spray	300

Tillage

This practice is designed to roughen and bring clods to the surface. It is an emergency measure that should be used before wind erosion starts. Begin plowing on windward wide of site. Chisel-type plows spaced approximately 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.

Irrigation

This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

Barriers

Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of approximately 15 times their height are effective in controlling wind erosion.

Calcium Chloride

Apply at a rate that will keep surface moist. May need to be retreated.

Permanent Methods and Materials

Permanent Vegetation

See section “Disturbed Area Stabilization.” Existing trees and large shrubs may afford valuable protection if left in place.

Topsoiling

This entails covering the surface with less erosive soil material. See section "Topsoiling."

Stone

Cover surface with crushed stone or coarse gravel.